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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/728,516

12/05/2003

Tracee Eidenschink

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EXAMINER

TYSON, MELANIE RUANO

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/728,516	<b>Applicant(s)</b> EIDENSCHINK ET AL.	
	<b>Examiner</b> Melanie Tyson	<b>Art Unit</b> 3773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14,35-38 and 55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14,35-38, and 55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04 June 2008 has been entered. Claims 15-34 and 39-54 remain cancelled.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-14 and 35-38 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Orth et al. (5,591,197). Orth discloses a stent (see entire document) comprising a first serpentine

band (for example, third ring shown in Figure 1C) connected to a second serpentine band (for example, fourth ring shown in Figure 1C) by at least one permanent connector strut (16A) and at least one disengagable connector strut (20; in that portion 21 is weakened and is capable of disengaging), wherein the disengagable connector strut is formed of stainless steel and is connected between a valley of the first serpentine band and a peak of the second serpentine band, thus is constructed and arranged to disengage by electrolytic detachment.

5. Claims 1, 13, 35-37, and 55 are rejected under 35 U.S.C. 102(e) as being anticipated by Mitsudou (7,029,492 B1). Mitsudou discloses a stent (see entire document) comprising a first serpentine band (for example, first ring shown in Figure 5) connected to a second serpentine band (for example, third ring shown in Figure 5) by at least one permanent connector strut (51) and at least one disengagable connector strut (4), wherein the disengagable connector struts are formed of stainless steel and are connected between a valley of the first serpentine band and a peak of the second serpentine band, thus are constructed and arranged to disengage by electrolytic detachment. Since the disengagable struts disengage upon expansion, they no longer transmit forces between bands. Upon breakage, it is inherent that material will break off of the disengagable connector, thus it is inherent that the mass of the metal framework (which includes the connectors) will decrease upon disengagement. Furthermore, if the disengagable connectors were disengaged by electrolytic detachment, the connectors would corrode in order to break thus decreasing the mass of the metal framework upon disengagement. Since the connectors form cells, disengagement of the connectors

forms single cells between adjacent cells. Figure 5 shows a portion of cells defined by a portion of permanent connector struts and after disengagement by the disengagable connectors, a portion of the cells would still be defined by the permanent connector struts.

6. Claims 1, 7-11, 13, 14, 35-38, and 55 are rejected under 35 U.S.C. 102(e) as being anticipated by Bashiri (2003/0045923 A1).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Bashiri discloses a self expanding stent (see entire document) comprising a first serpentine band (for example see Figures 7 and 8) connected to a second serpentine band (for example Figure 8) by at least one permanent connector strut (117) connected between a valley on the first band and a peak on the second band and at least one disengagable connector strut (114) connected between a valley on the first band and a peak on the second band, wherein the disengagable connector strut is formed of stainless steel and is connected between a valley of the first serpentine band and a peak of the second serpentine band, thus is constructed and arranged to disengage by electrolytic detachment. Since the disengagable struts are connected between the first and second bands, they inherently restrain the bands from further expansion until they

break, in which they no longer transmit forces between bands. Upon breakage, it is inherent that material will break off of the disengagable connector, thus it is inherent that the mass of the metal framework (which includes the connectors) will decrease upon disengagement. Furthermore, if the disengagable connectors were disengaged by electrolytic detachment, the connectors would corrode in order to break thus decreasing the mass of the metal framework upon disengagement. Bashiri further discloses the disengagable connectors comprise neck portions (for example, see Figure 9, portion between portions 116), wherein disengagement occurs at the necked portion (for example, see Figure 10). Since the connectors form cells, disengagement of the connectors forms single cells between adjacent cells. Figure 8 shows a portion of cells defined by a portion of permanent connector struts and after disengagement by the disengagable connectors, a portion of the cells would still be defined by the permanent connector struts.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 7, 8, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orth et al.

Regarding claims 7 and 8, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the stent from a self-expanding material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice.

Regarding claim 14, it would have been obvious to one having ordinary skill in the art at the time the invention was made to attach the connectors to the position on the bands as claimed, since the applicant has not disclosed that this configuration provides an advantage, is used for a particular purpose, or solves a stated problem and it appears the prior art configuration would perform equally well.

10. Claims 2, 7-9, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsudou.

Regarding claim 2, Mitsudou fails to disclose the corrosion potential of the material used to construct the disengagable struts and serpentine bands. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the disengagable connector struts from a material having a higher corrosion potential than the material used to form the serpentine bands, since it has been held to

be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice.

Regarding claims 7-9 and 38, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the stent from a self-expanding material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice.

11. Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being obvious over Bashiri.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing



that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Regarding claim 2, Bashiri fails to disclose the corrosion potential of the material used to construct the disengagable struts and serpentine bands. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the disengagable connector struts from a material having a higher corrosion potential than the material used to form the serpentine bands, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice.

Regarding claim 12, it would have been obvious to one having ordinary skill in the art at the time the invention was made to connect the disengagable strut to the band at the necked portion, since the applicant has not disclosed that this configuration provides an advantage, is used for a particular purpose, or solves a stated problem and it appears the prior art configuration would perform equally well.

12. Claims 3-6 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsudou in view of Acosta et al. (2004/0093061 A1).

Mitsudou discloses the claimed invention except for electrical leads coupled to the disengagable struts and that the disengagable struts comprise a necked portion. Acosta discloses stents rings connected by disengagable struts (see entire document). Acosta teaches electrical leads (electrodes) may be coupled to the stent rings in order to disengage the disengagable connector struts (for example, see paragraph 27). Acosta further teaches providing the disengagable connector struts with a necked

portion (84) in order to permit the application of axial compression and axial tension without decoupling during deployment (for example, see paragraph 97). It is well within the general knowledge of one having ordinary skill in the art to apply a known technique to a known device ready for improvement to yield predictable results. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form Mitsudou's connectors as taught by Acosta and further provide the stent with electrical leads as taught by Acosta. Doing so would provide the stent with the advantages described above, as well as provide a means for effectively breaking the connectors once they are no longer required.

Regarding claim 12, it would have been obvious to one having ordinary skill in the art at the time the invention was made to connect the disengagable strut to the band at the necked portion, since the applicant has not disclosed that this configuration provides an advantage, is used for a particular purpose, or solves a stated problem and it appears the prior art configuration would perform equally well.

13. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being obvious over Bashiri in view of Acosta et al.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject

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matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Bashiri discloses the claimed invention except for electrical leads coupled to the disengagable struts. Acosta discloses stents rings connected by disengagable struts (see entire document). Acosta teaches connecting electrical leads (electrodes) may be coupled to the stent rings in order to disengage the disengagable connector struts (for example, see paragraph 27). It is well within the general knowledge of one having ordinary skill in the art to apply a known technique to a known device ready for improvement to yield predictable results. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Bashiri's stent with electrical leads as taught by Acosta. Doing so would provide a means for effectively breaking the connectors.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Tyson whose telephone number is (571)272-

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9062. The examiner can normally be reached on Monday through Thursday 8:30-7 (max flex).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jackie Ho can be reached on (571) 272-4696. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Melanie Tyson /M. T./  
Examiner, Art Unit 3773

/Julian W. Woo/  
Primary Examiner, Art Unit 3773

August 18, 2008